



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,864	09/13/2006	Gee Young Lee	0144 - P0047/A	1511
66837	7590	12/28/2011	EXAMINER	
HYUN JONG PARK			ALLEN, JEFFREY R	
Park & Associates IP Law LLC			ART UNIT	PAPER NUMBER
265 Bic Drive			3781	
Suite 106			MAIL DATE	
Milford, CT 06461			12/28/2011	
			DELIVERY MODE	
			PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/598,864	Applicant(s) LEE, GEE YOUNG
	Examiner JEFFREY ALLEN	Art Unit 3781

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 26 October 2011.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
- 4) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) Claim(s) 6-13 is/are pending in the application.
- 5a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 6) Claim(s) _____ is/are allowed.
- 7) Claim(s) 6-13 is/are rejected.
- 8) Claim(s) _____ is/are objected to.
- 9) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 10) The specification is objected to by the Examiner.
- 11) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Specification

1. The amendment filed 10/26/2011 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: wherein each of the stay reinforcement members have a first end attached to a corner area of neighboring stay reinforcement members of the bottom surface of the tank body, and a second end attached to a corner area of neighboring stay reinforcement member of the ceiling surface of the tank body, wherein each of the beam reinforcement members have a first end attached to a corner area of neighboring beam reinforcement members of one of the side surfaces of the tank body, and a second end attached to a corner area of neighboring beam reinforcement member another side surface of the tank body, and wherein the unit panel has layers with generally c-shaped cross sections.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 6-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter

which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims include the limitations discussed in the specification objection shown above but these limitations were not present in the originally filed disclosure. The original disclosure describes how reinforcement members are connected to corners of the panels but fails to teach reinforcement members on the bottom and side walls with corners attached to the reinforcement members. The original disclosure also describes the unit panel as having an arched center portion but fails to teach a generally c-shaped cross section.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6, 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hall et al. (U.S. Patent No. 6,422,413) in view of Lawrence (U.S. Patent No. 5,540,975), Dunn et al. (U.S. Patent Application Publication No. 2001/0022302) and Tada et al. (JP 56-12589U).

6. Regarding claim 6, Hall discloses a metal tank (10) having a foundation plate (38), an inlet pipe an, over flower pipe, an outlet pipe and drain pipe communicating with

an upper and lower portion of the tank body (col. 4, lines 25-41), the tank body being constructed with a bottom surface (Fig. 7) having a first metal plate (12) manufactured out of iron (col. 2, lines 55-59) and a thermal insulation material (58) manufactured out of foamed plastic (col. 5, lines 22-24) arranged in stacked relation to each other, the tank body further having side surfaces having a first metal plate (12) manufactured out of iron, a thermal insulation material (58) manufactured out of foamed plastic, and a second metal plate (20) manufactured out of steel (col. 2, lines 63-65) arranged in stacked relation to each other. Hall further discloses wherein the tank has a plurality of stay reinforcement members (32) arranged between edges of the top and bottom surface of the tank body, and a plurality of beam reinforcement members (36) arranged between corners of reinforcement members on the side surfaces of the tank body.

7. Hall fails to teach wherein the surfaces of the tank body are manufactured out of a plurality of panels, wherein the tank body has a ceiling surface, wherein the panels have a polyethylene resin layer, wherein the panels are attached together by securing means comprising a securing screw extending through the components of the panel and a nut secured at the end of the screw, wherein the stay reinforcement members are attached to corner areas of reinforcement members on the bottom and ceiling of the tank body, and wherein the stacked layers of the panels are manufactured out of the specific claimed materials.

8. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have manufactured the reinforcement members of Hall along the bottom and ceiling of the tank body, such that the stay reinforcement members were

connected to corner of the reinforcement members, in order to increase the strength of the tank body and since it has been held that duplication of the essential working parts of a device involves only routine skill in the art.

9. Lawrence teaches that it is known in the art to manufacture a fluid storage tank (10) wherein the tank has an inner resin layer (90) manufactured out of polyethylene (col. 4, lines 54-58) for providing corrosion protection from liquids stored within the tank (col. 4, lines 46-48).

10. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have manufactured the tank of Hall with a polyethylene resin layer, as taught by Lawrence, in order to provide the tank with corrosion protection from liquids stored within the tank.

11. Dunn teaches that it is known in the art to manufacture a tank body with a ceiling surface (20).

12. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have manufactured the modified tank of Hall with a ceiling surface, as taught by Dunn, in order to better protect the interior of the tank.

13. Tada teaches that it is known in the art to manufacture a tank that is constructed out of a plurality of panels (1), wherein the panels are attached to each other through the use of securing means in the form of a screw (81) that penetrates the edge portion of the unit panels and is secured by a nut (82).

14. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have manufactured the modified tank of Hall out of a plurality of

panels, in the manner taught by Tada, so that broken parts of the tank could be easily repaired and since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art.

15. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have manufactured the stacked layers of the panels out of the specific claimed materials, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice (In re Leshin, 125 USPQ 416).

16. Regarding claims 8 and 10, the modified tank of Hall teaches wherein the unit panels have a rigid engagement member (Tada, 23) and circular through holes to which the screws are to be coupled (Tada, Fig. 2), and wherein the stay reinforcement members and beam reinforcement members are at least partially welded to each other (Hall, col. 4, lines 4-7).

17. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hall in view of Lawrence, Dunn and Tada as shown above and further in view of Rogers (U.S. Patent No. 5,430,927).

18. The modified tank of Hall teaches all the claimed limitations as shown above but fails to teach wherein the tank has a ladder attached to it.

19. Rogers teaches that it is known in the art to manufacture a storage tank with a ladder (col. 3, ll. 61).

20. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have manufactured the modified storage tank of Hall with a ladder, as taught by Rogers, in order to provide a means for a maintenance worker to access higher parts of the tank.

21. Claims 9 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hall in view of Lawrence, Dunn and Tada as shown above and further in view of Yatsushiro et al. (U.S. Patent No. 6,931,955).

22. Regarding claim 9, the modified tank of Hall teaches all the claimed limitations as shown above but fails to teach wherein the engagement members are sealed by a polyethylene.

23. Yatsushiro teaches that it is known in the art to manufacture a screw engagement member with a seal (17) manufactured out of a polyethylene (col. 4, lines 4-9).

24. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have manufactured the modified tank of Hall with a seal, as taught by Yatsushiro, in order to better protect the joints of the unit panels.

25. Regarding claims 11-13, the modified tank of Hall teaches all the claimed limitations as shown above and wherein the unit panels have an upper surface, a side surface portion extending vertically from side edges of the upper surface portion and a lower surface portion parallel with the top surface extending vertically from the side

edges of the side surface portion (Tada, Figs. 1 and 2), but fails to teach wherein the unit panels have a generally c-shaped cross section.

26. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have manufactured the panels with a c-shaped cross section, so that the panels could be arranged together in different orientations and since such a modification would have been a change in shape of an existing component. A change in shape is generally recognized as being within the level of ordinary skill in the art.

Response to Arguments

27. Applicant's arguments filed 10/26/2011 have been fully considered but they are not persuasive.

28. Applicant's arguments stating the claimed limitations are not persuasive because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

29. Applicant's arguments with respect to the remaining claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

30. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY ALLEN whose telephone number is (571)270-7426. The examiner can normally be reached on Monday through Friday 9:00 AM TO 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on (571)272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. A./
Examiner, Art Unit 3781

/Anthony Stashick/
Supervisory Patent Examiner, Art
Unit 3781